

## IN THE CLAIMS

Please amend the claims to read as follows:

### Listing of Claims

1. (Currently Amended) A pulsed detonation engine having supplied cyclically with a combustible charge fed into the combustion chamber (5) of a flame tube (2) with a lateral wall and a transverse base (3) defining a combustion chamber and by a supply device (6) cyclically feeding said combustion chamber with a combustible charge, wherein:

said transverse base (3) of the flame tube (2) is movable for reciprocating in translation inside said flame tube ~~mounted so that it can move with respect to the latter~~ in order to be able to occupy two boundary positions, a first position corresponding to the detonation phase of the combustible charge in the combustion chamber (5) of said flame tube and a second position corresponding to the phase wherein the combustible charge is supplied to said combustion chamber;

at least one supply opening (7) for said combustible charge is provided in a the lateral wall (4) of said flame tube, said supply this opening being closed off and separated from said combustion chamber (5) by said movable transverse base (3) when said the movable transverse base latter is occupying the its first position and being in fluid communication with said combustion chamber (5) when said movable transverse base (3) is occupying the its second position; and

in said first position, said transverse movable base (3) is secured to said flame tube (2) by a releasable locking unit means (9; 42, 43).

2. (Currently Amended) The engine as claimed in claim 1, wherein said transverse movable base (3) slides with respect to said flame tube (2) between the first and second positions.

3. (Currently Amended) The engine as claimed in claim 1, wherein said transverse movable base (3) rotates with respect to said flame tube (2) between the first and second positions.

4-5. (Canceled)

6. (Currently Amended) The engine as claimed in claim 1, wherein an internal stop (8) is provided in said flame tube (2) in order to mark the first position of said movable transverse base.

7. (Currently Amended) The engine as claimed in claim 6, wherein said internal stop comprises ~~takes the form of~~ an internal annular shoulder (8) emanating from the lateral wall (4) of said flame tube (2) and against which ~~a~~ the piston of said movable base (3) is applied in ~~the~~ its first position.

8. (Currently Amended) The engine as claimed in claim 1, wherein an elastic return unit ~~is means (21)-are~~ provided in said flame tube (2) in order to return said movable transverse base-

(3) from the its second position toward the its-first position.

9. (Currently Amended) The engine as claimed in claim 8, wherein said elastic return unit ~~means (21)~~ comprises at least one spring (22) acting on a ~~the~~ block of said movable transverse body (3).

10. (Currently Amended) The engine as claimed in claim 6, wherein said lateral supply opening (7) is disposed adjacently to said internal stop (8).

11. (Currently Amended) The engine as claimed in claim 1, of the type comprising an ignition device, wherein said ignition device (30) comprises a unit ~~means (31, 32, 33, 34)~~ ~~for using~~ that uses the reciprocating movement of said transverse movable base (3) and cyclically ~~igniting~~ ignites the combustible charge.

12. (Currently Amended) The engine as claimed in claim 11, wherein said ignition device (30) is of the piezoelectric type and the unit comprises a movable weight (31) connected to said transverse movable base, a retaining device (32) which is able to maintain said weight in a ~~the~~ primed position, an elastic element (33) for returning said weight to a ~~the~~ percussion position subsequent to the release of said retaining device, and a piezoelectric member (34) generating an electrical current in order to ignite said combustible charge when said plate ~~weight~~ comes into the percussion position.

13. (New) A pulsed detonation engine having a flame tube with a lateral wall and a transverse base defining a combustion chamber and a supply device cyclically feeding said combustion chamber with a combustible charge, wherein:

said transverse base comprises a piston with a transverse wall facing said combustion chamber and with a lateral skirt cooperating with the wall of said flame tube, said piston configured to reciprocate inside said flame tube and to occupy two boundary positions, a first position corresponding to a detonation phase of the combustible charge in the combustion chamber of said flame tube and a second position corresponding to a phase wherein the combustible charge is supplied to said chamber;

at least one supply opening for said combustible charge is provided in the lateral wall of said flame tube, said supply opening being closed off and separated from said combustion chamber by said lateral skirt when said piston is occupying said first position and being in fluid communication with said chamber when said piston is occupying said second position; and

in said first position, said piston is secured to said tube by a releasable locking unit comprising an internal block housed in said piston in a sliding manner and passing through said transverse wall of said piston so as to emerge in said combustion chamber, and also at least one locking roller subjected to a movement of said block and configured to pass radially through the lateral skirt of said piston in order to engage in a reception housing of said tube and to immobilize said transverse movable base.

14. (New) A pulsed detonation engine having a flame tube with a lateral wall and a transverse base defining a combustion chamber and a supply device cyclically feeding said

combustion chamber with a combustible charge, wherein:

said transverse movable base is mounted rotationally on a reciprocating piston arranged in said flame tube and configured to occupy two boundary positions, a first position corresponding to a detonation phase of the combustible charge in the combustion chamber of said flame tube and a second position corresponding to a phase wherein the combustible charge is supplied to said chamber;

at least one supply opening for said combustible charge is provided in the lateral wall of said flame tube, the at least one supply opening being closed off and separate from said combustion chamber by said piston occupying said first position and being in fluid communication with said combustion chamber when said piston is occupying said second position; and

said piston is provided with peripheral locking tenons which are able to cooperate, in said first position, with locking housings which are disposed in said flame tube and are in communication with said combustible chamber and, through the effect of a detonation, said transverse movable base rotates with respect to said piston, inhibiting the cooperation of the locking tenons and the locking housing and enabling said piston to assume said second position.